International Research Conference on Food, Nutrition, and Cancer

Poster Abstracts[1]

Food, Nutrition, Physical Activity, and Endometrial Cancer: a Comparison of Two Systematic Literature Reviews as a Test of WCRF International's New Methodology. L. M. Miles,* E. V. Bandera,† V. Burley, R. R. Butrum,‡ J. Cade,†† G. J. Cannon,* D. Forman,†† J. L. Freudenheim,‡‡ I. Gordon,†† D. Greenwood,†† S. J. Heggie,* D. R. Jacobs, Jr.,# C. A. James,‡ R. Kalliecharian,†† L. H. Kushi,§ M. L. McCullough,## J. Moreton,†† T. Rastogi,§§ E. M. Stone,* R. L. Thompson,*** and M. J. Wiseman.*** *World Cancer Research Fund International, London, UK; †Cancer Institute of New Jersey, UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ; **Nuffield Institute of Health, University of Leeds, Leeds, UK; ‡American Institute for Cancer Research, Washington DC; ††School of Medicine, University of Leeds, Leeds, UK; ‡‡Department of Social and Preventive Medicine, University of Buffalo School of Medicine, State University of New York, Buffalo, NY; #Division of Epidemiology, University of Minnesota School of Public Health, Minneapolis, MN; §Division of Research, Kaiser Permanente, Oakland, CA; ##Epidemiology and Surveillance Research, American Cancer Society, Atlanta, GA; §§Division of Cancer Epidemiology and Genetics, National Cancer Institute, Rockville, MD; and ***Institute of Human Nutrition, University of Southampton, UK.

The World Cancer Research Fund (WCRF) and American Institute for Cancer Research (AICR) are producing a second expert report to follow the landmark 1997 report Food, Nutrition and the Prevention of Cancer: a global perspective. A task force was convened to guide the development of a standardized methodology for reviewing the literature on etiology of cancer in terms of food, nutrition, and physical activity. The outcome was presented as a set of guidelines for conducting systematic literature reviews. The new methodology has been tested by 2 independent centers, one in the United States, based at Kaiser Permanente, and another in the United Kingdom, based at the University of Leeds. Each center conducted independent systematic literature reviews on the associations between food, nutrition, physical activity, and the risk of endometrial cancer using the standardized methodology. The output was assessed by a comparison of the search results, assignment of study design, and assignments of key papers and meta-analyses in order to determine a measure of reproducibility. In addition, the test was used to assess the feasibility and utility of the new methodology. The 2 centers identified a combined total of 303 relevant epidemiological papers. Of these, 157 papers were identified as relevant by both centers. The discrepancies in the identification of relevant papers were a result of differences in search results and assessment of relevance, each contributing equally to the discrepancies. The 2 centers identified a combined total of 138 key papers. Of the total papers included, only 7% were identified as key papers by one center and missed by the other. For exposures where a meta-analysis was conducted, summary estimates were similar. No effect size estimate (as odds ratio or risk ratio) from one test center fell outside the 95% confidence intervals of the other.

Dietary Lipids and Endometrial Cancer Risk: Systematic Literature Reviews and Meta-analyses. L. H. Kushi,* E. V. Bandera,† D. F. Moore, V. Burley,‡ J. Cade,‡ D. Forman,‡ J. L. Freudenheim,†† D. C. Greenwood,‡‡ D. R. Jacobs, Jr.,# M. L. McCullough,§ and T. Rastogi.## ***Division of Research, Kaiser Permanente, Oakland, CA; †Cancer Prevention and Control Program, The Cancer Institute of New Jersey, New Brunswick, NJ; **Department of Biostatistics, School of Public Health, University of Medicine and Dentistry of New Jersey, Piscataway, NJ; ‡The Centre for Epidemiology and Biostatistics, University of Leeds, Leeds, UK; ††Department of Social and Preventive Medicine, University at Buffalo School of Public Health and Health Professions, State University of New York, Buffalo, NY; ‡‡Biostatistics Unit, University of Leeds Medical School, Leeds, UK; #Division of Epidemiology, University of Minnesota School of Public Health, Minneapolis, MN and Department of Nutrition, University of Oslo, Oslo, Norway; §Department of Epidemiology and Surveillance Research, American Cancer Society, Atlanta, GA; ##Division of Cancer Epidemiology and Genetics, National Cancer Institute, Rockville, MD.

In the 1997 World Cancer Research Fund and American Institute for Cancer Research report, *Food, Nutrition and the Prevention of Cancer,* it was suggested that it was "possible" that saturated and animal fat may increase endometrial cancer risk whereas evidence was deemed "insufficient" for total fat or dietary cholesterol intake. To support a new version of this report, we conducted systematic literature reviews and meta-analyses on these 4 variables and endometrial cancer risk. We identified 8 case-control and 2 cohort studies with data published in 11 peer-reviewed manuscripts that were suitable for inclusion in the meta-analyses. For total fat intake in a random-effects dose-response meta-analysis, there was a relative risk estimate (RR) of 1.09 [95% confidence interval (CI): 1.01–1.09] for an increase of 10% of energy from fat. For animal fat the summary RR was 1.10 (95% CI: 0.98–1.25) for an increase of 7 g/1000 kcal. For saturated fat a 7 g/1000 kcal

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